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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Noriaki Okamura

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BUCHANAN, INGERSOLL & ROONEY PC
POST OFFICE BOX 1404
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EXAMINER

HSU, RYAN

ART UNIT

PAPER NUMBER

3714

NOTIFICATION DATE

DELIVERY MODE

03/19/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/786,590	Applicant(s) OKAMURA, NORIAKI	
	Examiner RYAN HSU	Art Unit 3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/11/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

In response to the Request for Continued Examination (RCE) under 37 CFR 1.114 filed on 12/11/08. Claims 1-13 are pending in the current application. The allowability of Claims 1-13 has been retracted.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 9 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 9 is directed towards a method for performing cursor control on a display device however it is not evidence what such a process is meant to accomplish. From the appearance of the instant claims it is not directed towards patent-eligible subject matter as it fails to describe a functioning invention as it is not clear what is controlling the a cursor. Under analysis using the machine-or-transformation test as set forth under *In re Bilski*, a claimed method is required to 1) tied to a particular machine or apparatus, or (2) transforms a particular article to a different state or thing. Under the first prong of the test a cursor control is not designated to be performed on any specific machine or apparatus. Instead its purported result is displayed to a screen at an attempt to provide tangibility. However, it is not apparent what device is providing the result described by the instant claims. Surely a display device can not execute or be controlled by a cursor control alone. Furthermore, it fails to transform any article to a different state or thing, the display device is not transformed in any matter. Thus the method of claim 9 fails to qualify as patent eligible subject matter.

Claim Rejections - 35 USC § 112.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The instant claims appear to be directed towards a cursor control apparatus that provides an operator guidance in moving towards desired points in a three dimensional environment. However, there is no indication of where the information is received or inputted by the user. Additionally, the claims as a whole appear to indicate that an operator has an initial point for the cursor to be at and through the input by the mouse or cursor control device will guide the operator to a desired position. However, neither an initialization point nor an input device is described in the body of the instant claims. Furthermore, it is unclear what the desired result of this invention is as it simply presents the user to the vicinity of a preset position of points. It is indefinite by what problem or useful result is accomplished by the indicated limitations.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 3-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsubaki (US 5,815,138).

Regarding claim 1, Tsubaki discloses a cursor control apparatus which performs cursor control for moving a cursor displayed on a display screen of a display device to a coordinate position of one of a plurality of points visibly or invisibly set in the display screen in accordance with a designation indicating a moving direction of the cursor in the display screen (*see col. 4: ln 15-40, col. 8: ln 25-65*), comprising: path calculation means for calculating a path which circulates through vicinities of positions of the points on the basis of coordinate positions of the points in the display screen (*see col. 6: ln 8-41, col. 10: ln 12-30*); intersection point coordinate position calculation means for calculating a coordinate position of an intersection point of the path and a line segment extending from a predetermined coordinate position in a region surrounded by the path calculated by said path calculation means in the moving direction of the cursor indicated by the designation (*see col. 8: ln 25-65*); and a display control means for moving a display position of the cursor to the calculated intersection point coordinate position (*see col. 10: ln 13-40*).

Regarding claim 8, Tsubaki disclose a cursor control program for causing a computer to perform cursor control for moving a cursor displayed on a display screen of a display device of the computer to a coordinate position of one of a plurality of points visibly or invisibly set in the display screen in accordance with a designation indicating a moving direction of the cursor in the display screen (*see col. 4: ln 15-40, col. 8: ln 25-65*), wherein the program causes the computer to perform: a path calculation step of calculating a path which circulates through vicinities of positions of the points on the basis of coordinate positions of the points in the display screen (*see*

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col. 6: ln 8-41, col. 10: ln 12-30); an intersection point coordinate position calculation step of calculating a coordinate position of an intersection point of the path (*see col. 8: ln 2 5-65*) and a line segment extending from a predetermined coordinate position in a region surrounded by the path calculated in the path calculation step in the moving direction of the cursor indicated by the designation (*see col. 10: ln 1-40*); and a display control step of moving a display position of the cursor to the calculated intersection point coordinate position (*see col. 8: ln 25-65f*).

Regarding claim 3, Tsubaki discloses a program wherein the plurality of points includes a point whose coordinate position in the display screen dynamically changes (*see Fig. 4(a-b) and the related description thereof*).

Regarding claim 4, Tsubaki discloses a program wherein the line segments are drawn from the predetermined coordinate position in the region surrounded by the path calculated by said path calculation means to the points, the points are arranged on the display screen so as to avoid a situation wherein two or more of the points are located on one of the line segments (*see col. 4: ln 15-56, col. 5: ln 1-10, col. 8: ln 25-65*).

Regarding claim 5, Tsubaki discloses a program, wherein said path calculation means searches for the coordinate positions of the points in a predetermined rotational direction around the predetermined coordinate position based on the coordinate positions of the points, and the path which circulates through all the points is obtained by performing a process of calculating a partial path which connects a found coordinate position and a next found coordinate position for each point (*see col. 8: ln 25-65*)).

Regarding claim 6, Tsubaki discloses a program wherein the partial path is represented by a curve (*see col. 8: ln 25-65*)).

Regarding claim 7, Tsubaki discloses a program wherein the partial path is represented by a line segment (*see col. 8: ln 25-65*)).

Regarding claim 10, Tsubaki is an apparatus capable of performing the operation wherein the points comprise a first point which has an event generated when the cursor overlaps the first point (*see col. 6: ln 1-40*)).

Regarding claim 11, Tsubaki is an apparatus capable of calculating barycentric position of the points using the coordinate positions of the points; searching each of the points based on the coordinate positions of the points from the calculated barycentric position; connecting a newly found point through the searching to one of more points that are previously found through the searching. Tsubaki teaches a control apparatus that provides function buttons [72] which are the points that would be indicated in the calculation of the barycentric positions. The points derived from the calculation would indicate where the desired point for the control apparatus to move a cursor. As a result a vector is calculated so that the input responses by an operator can be manipulator to direct the cursor to that position (*see col. 8: ln 25-65*)).

Regarding claim 12-13, Tsubaki is an apparatus capable of connecting the newly found point to the one or more points that are previously found using a spline curve, Bezier curve, or a line (*see col. 8: ln 25-65*). Additionally, Tsubaki discloses an apparatus that is capable to comprise a second point which does not have an event generated when the cursor overlaps the second point (*see col. 7: ln 16-67*)).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsubaki as applied to claims above, and further in view of Keyson (US 5,784,052).

Regarding claim 2, Tsubaki discloses a cursor control program as described in the rejection above. However it is silent with respect to providing coordinate positions of the points to be obtained by projecting coordinate positions, which are represented in a three-dimensional coordinate system, of corresponding objects in a three-dimensional virtual space.

However, in a related input control patent, Keyson teaches a process that allows a mouse or trackball to enable truly 3-dimensional input for an operator in a multi-media environment (*see abstract*). One would be motivated to incorporate the features of Keyson into that of Tsubaki in order to provide control in a 3-dimensional graphics environment. At the time the invention was made it would have been obvious to one of ordinary skill in the art to adapt Tsubaki with the 3-dimensional tactics of Keyson to provide a cursor control apparatus.

Conclusion

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Any inquiry concerning this communication or earlier communication from the examiner should be direct to Ryan Hsu whose telephone number is (571)-272-7148. The examiner can normally be reached on M-F 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Hotaling can be reached at (571)-272-4437.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, contact the Electronic Business Center (EBC) at 1-866-217-9197 (toll-free).

RH

March 16, 2009

/John M Hotaling II/

Supervisory Patent Examiner, Art Unit 3714